

# ABSTRACT OF THE DISCLOSURE

An optical device includes a transparent material layer having a desired curved surface configuration, a layer including a variable refractive index material having a dielectric constant anisotropy and having a property in which a sign of a difference  $\Delta\epsilon$  in dielectric constant due to the anisotropy is reversed at driving frequencies  $f_1$  and  $f_2$ , at least two transparent electrodes arranged to sandwich the transparent material layer and the layer including the variable refractive index material, and a driving device supplying a voltage including the driving frequencies  $f_1$  and  $f_2$  between the transparent electrodes.